

SOL *RE* *5610*

RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/049,988
Source: Pat10
Date Processed by STIC: 3/5/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/049,988

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" READERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 **Wrapped Nucleic
Wrapped Aminos**
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping".

2 **Invalid Line Length**
The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 **Misaligned Amino
Numbering**
The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 **Non-ASCII**
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 **Variable Length**
Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <210>-<212> section that some may be missing.

6 **PatentIn 2.0
"bug"**
A "bug" in PatentIn version 2.0 has caused the <210>-<212> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <210>-<212> section to the subsequent amino acid sequence. This applies to the mandatory <210>-<213> sections for Artificial or Unknown sequences.

7 **Skipped Sequences
(OLD RULES)**
Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(ii) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 **Skipped Sequences
(NEW RULES)**
Sequence(s) _____ missing. If Intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 **Use of n's or Xaa's
(NEW RULES)**
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <210>-<212> is MANDATORY if n's or Xaa's are present.
In <210> to <212> section, please explain location of n or Xaa; and which residue n or Xaa represents.

10 **Invalid <213>
Response**
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <210>-<212> section is required when <213> response is Unknown or is Artificial Sequence

11 **Use of <220>**
Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown". Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 **PatentIn 2.0
"bug"**
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 **Minuse of n**
n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



PCT/a

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,988

DATE: 03/05/2002
TIME: 14:00:57

Input Set : A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Biosyn Arzneimittel GmbH
5 <120> TITLE OF INVENTION: Nucleic acid molecule comprising a nucleic acid sequence
6 which codes for a haemocyanin, and comprising at least one
7 intron sequence
9 <130> FILE REFERENCE: PCT1220-01966
11 <140> CURRENT APPLICATION NUMBER: US/10/049,988
12 <141> CURRENT FILING DATE: 2002-02-20
14 <160> NUMBER OF SEQ ID NOS: 108
16 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

see
item 9 on

Environ

Summary Sheet

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,988

DATE: 03/05/2002
TIME: 14:00:57

Input Set : A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

443 ccagaatgca gatgtcaggaa ttcatataccatgtttaggat gactaa 1546
 1855 <210> SEQ ID NO: 39
 1856 <211> LENGTH: 515
 1857 <212> TYPE: PRT
 1858 <213> ORGANISM: Haliotis tuberculata p, 3
 1860 <400> SEQUENCE: 39
 1861 Gly Ala His Arg Gly Pro Val Glu Glu Thr Glu Val Thr Arg Gln His 15
 1862 1 5 10 15
 1864 Thr Asp Gly Asn Ala His Phe His Arg Lys Glu Val Asp Ser Leu Ser
 1865 20 25 30
 1867 Leu Asp Glu Ala Asn Asn Leu Lys Asn Ala Leu Tyr Lys Leu Gln Asn
 1868 35 40 45
 1870 Asp His Ser Leu Thr Gly Tyr Glu Ala Ile Ser Gly Tyr His Gly Tyr
 1871 50 55 60
 1873 Pro Asn Leu Cys Pro Glu Glu Gly Asp Asp Lys Ile Pro Leu Leu Arg
 1874 65 70 75 80
 1876 Pro Arg Met Gly Ile Phe Pro Tyr Trp His Arg Leu Leu Thr Ile Gln
 1877 85 90 95
 1879 Leu Glu Arg Ala Leu Glu His Asn Gly Ala Leu Leu Gly Val Pro Tyr
 1880 100 105 110
 1883 Trp Asp Trp Asn Lys Asp Leu Ser Ser Leu Pro Ala Phe Phe Ser Asp
 1884 115 120 125
 1886 Ser Ser Asn Asn Asn Pro Tyr Phe Lys Tyr His Ile Ala Gly Val Gly
 1887 130 135 140
 1889 His Asp Thr Val Arg Glu Pro Thr Ser Leu Ile Tyr Asn Gln Pro Gln
 1890 145 150 155 160
 1892 Ile His Gly Tyr Asp Tyr Leu Tyr Tyr Leu Ala Leu Thr Thr Leu Glu
 1893 165 170 175
 1895 Glu Asn Asn Tyr Trp Asp Phe Glu Val Gln Tyr Glu Ile Leu His Asn
 1896 180 185 190
 1898 Ala Val His Ser Trp Leu Gly Gly Ser Gln Lys Tyr Ser Met Ser Thr
 1899 195 200 205
 1901 Leu Glu Tyr Ser Ala Phe Asp Pro Val Phe Met Ile Leu His Ser Gly
 1902 210 215 220
 1904 Leu Asp Arg Leu Trp Ile Ile Trp Gln Glu Leu Gln Lys Ile Arg Arg
 1905 225 230 235 240
 1907 Lys Pro Tyr Asn Phe Ala Lys Cys Ala Tyr His Met Met Glu Glu Pro
 1908 245 250 255
 1910 Leu Ala Pro Phe Ser Tyr Pro Ser Ile Asn Gln Asp Glu Phe Thr Arg
 1911 260 265 270
 1913 Ala Asn Ser Lys Pro Ser Thr Val Phe Asp Ser His Lys Phe Gly Tyr
 1914 275 280 285
 1916 His Tyr Asp Asn Leu Asn Val Arg Gly His Ser Ile Gln Glu Leu Asn
 1917 290 295 300
 1919 Thr Ile Ile Asn Asp Leu Arg Asn Thr Asp Arg Ile Tyr Ala Gly Phe
 1920 305 310 315 320
 1922 Val Leu Ser Gly Ile Gly Thr Ser Ala Ser Val Lys Ile Tyr Leu Arg
 1923 325 330 335
 1925 Thr Asp Asp Asn Asp Glu Glu Val Gly Thr Phe Thr Val Leu Gly

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,988

DATE: 03/05/2002
TIME: 14:00:57

Input Set : A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

1926 340 345 350
 1928 Glu Arg Glu Met Pro Trp Ala Tyr Glu Arg Val Phe Lys Tyr Asp Ile
 1929 355 360 365
 1931 Thr Glu Val Ala Asp Arg Leu Lys Ile Lys Leu Trp Gly His Pro Leu
 1932 370 375 380
 1934 Thr Ser Gly Thr Gly Asp His Ile Leu Thr Asn Gly Ile Gly Gly Lys
 1935 385 390 395 400
 1937 Gln Glu Pro Thr Gln Ile Leu Ser Ser Thr Asp Leu Pro Ile Met
 1938 405 410 415
E--> 1940 Thr Thr Met Phe Leu Leu Ser Gln Xaa Gly Arg Asn Leu His Ile Pro
 1941 420 425 430
 1943 Pro Lys Val Val Val Lys Lys Gly Thr Arg Ile Glu Phe His Pro Val
 1944 435 440 445
 1946 Asp Asp Ser Val Thr Arg Pro Val Val Asp Leu Gly Ser Tyr Thr Ala
 1947 450 455 460
 1949 Leu Phe Asn Cys Val Val Pro Pro Phe Thr Tyr His Gly Phe Glu Leu
 1950 465 470 475 480
 1952 Asn His Val Tyr Ser Val Lys Pro Gly Asp Tyr Tyr Val Thr Gly Pro
 1953 485 490 495
 1955 Thr Arg Asp Leu Cys Gln Asn Ala Asp Val Arg Ile His Ile His Val
 1956 500 505 510
 1958 Glu Asp Glu
 1959 515
 2852 <210> SEQ ID NO: 62
 2853 <211> LENGTH: 1185
 2854 <212> TYPE: DNA
 2855 <213> ORGANISM: *Haliothis tuberculata*
 2857 <400> SEQUENCE: 62
 2858 atcatatgtc tgccatgttgc gtcggaaaag acgtgcacgtc tcttaccgc tctggatgat
 2859 aagaccctgcg gcatgtctgc caaaggctgttgc tgatgtatgc tgaccccaat qgatttca
E--> 2860 caattgtctgc ttatcacggg agtctccca tggatgtatgc tgatgtatgc agagacgt
 2861 catgttgtac ttcatggatgc gcatcttcc tcacatggatgc cagatcttttggatgtatgc
 2862 ttggaggatgc actgtgcgtc catggatgc acatgttgcat ccataatgg tggatgtatgc
 2863 gtgcgtttag tcatctgcgttgc ccatgttgc tggatgtatgc tgaccccaat ttccacca
 2864 gacatcatgc ttcatggatgc gttggatgtatgc ctgcatgttgc gagacatgc ctgttccaa
 2865 acccccaaca cgggttcatgc ttcatcttc ttatgcatgc tcttccatgc ttcacaca
 2866 caactgttgc caatgttgc gttggatgtatgc aaatcacaca caatgttgc ttcacaca
 2867 ctggaggaca ttcatcatgc gatgttgc ttcatgttgc ttcacaca ttcacaca
 2868 ttatcttc ttatcttc caatccaaac actgttgc ttcatgttgc ttcacaca
 2869 acagatgttgc ttatcatggatgc gatgttgc ttcacaca
 2870 aaccatccgc cggatgttgc aatccaaaccc cttatgttgc ttcacaca
 2871 attcatttgc ttatgttgc ttcacaca
 2872 ctatcttc ttcatgttgc gatgttgc ttcacaca
 2873 cttcttcgtt gatgttgc ttcacaca
 2874 atgttgc ttcatgttgc gatgttgc ttcacaca
 2875 ggttgc ttcatgttgc ttcacaca
 2876 actatgttgc ttcatgttgc ttcacaca
 2877 ctatcttc ttcatgttgc ttcacaca
 4137 <210> SEQ ID NO: 79

RAW SEQUENCE LISTING,
PATENT APPLICATION: US/10/049,988

DATE: 03/05/2002
TIME: 14:00:57

Input Set : A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

4138 <211> LENGTH: 395
 4139 <212> TYPE: PRT
 4140 <213> ORGANISM: Megathura crenulata
 4142 <400> SEQUENCE: 79
 4143 Asp His Ile Ala Gly Ser Gly Val Arg Lys Asp Val Thr Ser Leu Thr
 4144 1 5 10 15
 4145 Ala Ser Glu Ile Glu Asn Leu Arg His Ala Leu Gln Ser Val Met Asp
 4146 20 25 30
 4147 25
 4148 Asp Asp Gly Pro Asn Gly Phe Gln Ala Ile Ala Ala Tyr His Gly Ser
 4149 35 40 45
 4150
 E--> 4152 Pro Pro Met Cys His Met Xaa Asp Gly Arg Asp Val Ala Cys Cys Thr
 4153 50 55 60
 4154 His Gly Met Ala Ser Phe Pro His Trp His Arg Leu Phe Val Lys Gln
 4155 65 70 75 80
 4156 Met Glu Asp Ala Leu Ala Ala His Gly Ala His Ile Gly Ile Pro Tyr
 4157 85 90 95
 4158 Trp Asp Trp Thr Ser Ala Phe Ser His Leu Pro Ala Leu Val Thr Asp
 4159 100 105 110
 4160 115 120 125
 4161 His Glu His Asn Pro Phe His His Gly His Ile Ala His Arg Asn Val
 4162 130 135 140
 4163 Asp Thr Ser Arg Ser Pro Arg Asp Met Leu Phe Asn Asp Pro Glu His
 4164 145 150 155 160
 4165 Thr Asp Phe Cys Gln Phe Glu Val Gln Phe Glu Ile Thr His Asn Ala
 4166 165 170 175
 4167 Ile His Ser Trp Thr Gly Gly His Thr Pro Tyr Gly Met Ser Ser Leu
 4168 180 185 190
 4169 Glu Tyr Thr Ala Tyr Asp Pro Leu Phe Tyr Leu His His Ser Asn Thr
 4170 195 200 205
 4171 210 215 220
 4172 Asp Arg Ile Trp Ala Ile Trp Gln Ala Leu Gln Lys Tyr Arg Gly Phe
 4173 225 230 235 240
 4174 Gln Tyr Asn Ala Ala His Cys Asp Ile Gln Val Leu Lys Gln Pro Leu
 4175 245 250 255
 4176 Ser Arg Ala Val Asp Ser Phe Asp Tyr Glu Arg Leu Asn Tyr Gln Tyr
 4177 260 265 270
 4178 Asp Thr Leu Thr Phe His Gly His Ser Ile Ser Glu Leu Asp Ala Met
 4179 275 280 285
 4180 Leu Gln Glu Arg Lys Lys Glu Glu Arg Thr Phe Ala Ala Phe Leu Leu
 4181 290 295 300
 4182 His Gly Phe Gly Ala Ser Ala Asp Val Ser Phe Asp Val Cys Thr Pro
 4183 305 310 315 320
 4184 Asp Gly His Cys Ala Phe Ala Gly Thr Phe Ala Val Leu Gly Gly Glu
 4185 325 330 335
 4186 Leu Glu Met Pro Trp Ser Phe Glu Arg Leu Phe Arg Tyr Asp Ile Thr
 4187 340 345 350
 4188 Lys Val Leu Lys Gln Met Asn Leu His Tyr Asp Ser Glu Phe His Phe

Item 9

RAW SEQUENCE LISTING . DATE: 03/05/2002
PATENT APPLICATION: US/10/049,988 TIME: 14:00:57

Input Set : A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

49961 <210> SEQ ID NO: 107

4962 <211> LENGTH: 1185

4963 <212> TYPE: DNA

4964 <213> ORGANISM: *Megathura crenulata*

4966 <400> SEQUENCE: 107

4967 qatcatattq ctggcagtgg agtcaggaaa gacgtgacgt ctcttaccgc atctgagata 60

4968 qagaacctqa qqcatgctct qcaaagcgtq atggatgtatq atggacccaa tggattccag 120

E--> 4969 gcaattgctg cttatcacgg aagtccctcc atgtgtcaca tgatgtatgg tagagacgtt 180

4970 gcatgttcta ctcatggaaat ggcatcttcc cctcaactggc acagactgtt tgtgaacag 240

4971 atggaggatg cactggctgc gcatggagct cacattggca taccatactg ggattggaca 300

4972 agtgcgttta gtcatctgcc tgccttagtg actgaccacg agcacaatcc cttccaccac 360

4973 ggacatattg ctcatcgaa tgtggataca tctcgatctc cgagagacat gctgttaat 420

4974 gaccccgAAC acgggtcaga atcattcttc tatagacagg ttcttggc tctagaacag 480

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,988

DATE: 03/05/2002
TIME: 14:00:58

Input Set: A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

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4975 acagacttgc gccaatttga agttcagttt gaaaataaac acaatgcata ccacttctgg 540
4976 actggaggac atactccata tggaatgtca tcaactggat atacagcata tgatccactc 600
4977 ttttatctcc accattccaa cactgatcgt atctggggca tctggcaggc actccagaa 660
4978 tacagaggtt ttcaatacaa cgcagctcat tgccgatatcc aggtttctgaa acaaccttctt 720
4979 aaaccattca gcgagtcac gaatccaaac ccagtccaca gggccaaatc tagggcagtc 780
4980 gattcatttgc attatggag acttcaatttata caaatatgaca cacttacattt ccacggacat 840
4981 tctatcttgc aactttatgc catgtctcaa gagagaaaga aggaaaggag aacatttgc 900
4982 gcctttctgt tgccacgattt tgccgcccgt gctgtatgtt cttgtatgtt ctgcacaccc 960
4983 gatgttgcattt ttgcacgttc tggaaacctc gcggtacttc tgccgatggct tgagatgtccc 1020
4984 tggtcttttgc aaagatgtt ccgttacatc atcacaaaagg ttctcaagca gatgaatctt 1080
4985 ctaatgtt ctgatgtca ctttgcgtt aagatgttgc aacatggatgg aacagatgtt 1140
4986 ccatcggtt gatcaagag cccttaccattt gaacaccatg gaggat 1185
4988 <210> SEQ ID NO: 108
4989 <211> LENGTH: 309
4990 <212> TYPE: DNA
4991 <213> ORGANISM: Megathura crenulata
4993 <400> SEQUENCE: 108
4994 ggtcacggatc acatgttgcattt tcacgtatggat ttttcaggaa aggaaggatcggtt ttccctgtcc 60
4995 ctggatgttgc ccaatgttgcattt taaaaatgtca ctgttacatgc tgccaaatgtca tcagggtccc 120
4996 atgttgcattt aatcaatgtca ctgttacatgc tgccatccat tccctctggcc tgaacatgtt 180
4997 gaagaccatgtt acgtatgttgc ttccacatggatc atgcctgtat ttccacatggatc gcacatgtt 240
4998 catacaatccatgttgcattt aatcaatgttgc ttccacatggatc atgcctgtat ttccacatggatc 300
4999 tgggacttgc 309

```

E--> 5005   delete

 Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/049,988

DATE: 03/05/2002
TIME: 14:00:59

Input Set : A:\seqlist-1.txt
Output Set: N:\CRF3\03052002\J049988.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:439 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:15
L:1940 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:39
L:2860 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:62
L:4152 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:79
L:4664 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:95
L:4969 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:107
L:5005 M:254 E: No. of Bases conflict, LENGTH:Input:8 Counted:309 SEQ:108